

Claims

1. A latent-heat storage type adsorbent composition for canisters comprising an adsorbent and a  
5 heat-storage material;

the adsorbent being capable of adsorbing fuel vapor,

the heat-storage material comprising a microencapsulated phase-change material, the phase-change  
10 material absorbing or releasing latent heat in response to temperature change.

2. A latent-heat storage type adsorbent composition for canisters according to Claim 1, wherein the adsorbent is activated carbon, activated alumina or a  
15 mixture thereof.

3. A latent-heat storage type adsorbent composition for canisters according to Claim 1 or 2, wherein the average particle diameter of the heat-storage material is about 1/1000 to about 1/10 of that of the  
20 adsorbent.

4. A latent-heat storage type adsorbent composition for canisters according to Claim 1, 2 or 3, wherein the average particle diameter of the adsorbent is about 1  $\mu\text{m}$  to about 10 mm.

25 5. A latent-heat storage type adsorbent

composition for canisters according to any one of Claims 1 to 4, wherein the average particle diameter of the heat-storage material is about 0.1 to about 500  $\mu\text{m}$ .

6. A latent-heat storage type adsorbent  
5 composition for canisters according to any one of Claims 1 to 5, wherein the heat-storage material is adhered to and/or deposited on the surface of the adsorbent.

7. A latent-heat storage type adsorbent  
composition for canisters which is in a form of a molded  
10 article comprising a latent-heat storage type adsorbent  
composition for canisters according to any one of Claims 1 to 6 and a binder.

8. A latent-heat storage type adsorbent  
composition for canisters according to Claim 7, wherein  
15 the molded article is in at least one shape selected from  
the group consisting of pellet, disc and block.

9. A method for producing a latent-heat storage  
type adsorbent composition for canisters according to any  
one of Claims 1 to 6 wherein the heat-storage material is  
20 adhered to and/or deposited on the surface of the  
adsorbent.

10. A method for producing a latent-heat storage  
type adsorbent composition for canisters according to any  
one of Claims 1 to 6 wherein the heat-storage material is  
25 electrostatically adhered to and/or deposited on the

surface of the adsorbent.

11. A method for producing a latent-heat storage type adsorbent composition for canisters according to any one of Claims 1 to 6 wherein the heat-storage material and 5 the adsorbent are uniformly mixed.

12. A method for producing a latent-heat storage type adsorbent composition for canisters according to any one of Claims 1 to 6 wherein a slurry obtained by suspending the heat-storage material in a liquid medium is 10 mixed with the adsorbent, and the mixture is then dried.

13. A method for producing a latent-heat storage type adsorbent composition for canisters comprising:

suspending a heat-storage material containing a microencapsulated phase-change material in a liquid medium 15 to give a slurry, the phase-change material capable of absorbing or releasing latent heat in response to temperature change, and

spraying a liquid mixture containing the slurry and, if necessary, a binder, on the surface of the fuel 20 vapor adsorbent.

14. A method for producing a latent-heat storage type adsorbent composition for canisters comprising:

molding a heat-storage material containing a microencapsulated phase-change material capable of 25 absorbing or releasing latent heat in response to

temperature change to produce a molded article, and uniformly mixing a fuel vapor adsorbent and the molded article.

15. A method for producing a latent-heat storage type adsorbent composition for canisters comprising:  
5 uniformly mixing a fuel vapor adsorbent, a powdery heat storage material containing a microencapsulated phase-change material capable of absorbing or releasing latent heat in response to  
10 temperature change or a slurry suspending the powdery heat storage material in the liquid medium, a binder and water, and  
molding the resultant mixture to form a desired shape.

15 16. A latent-heat storage type adsorbent composition for canisters obtained by the method according to any one of Claims 13 to 15.

17. A canister for preventing fuel vaporization in which the latent-heat storage type adsorbent  
20 composition of any one of Claims 1 to 8 and 16 is placed in a canister case.